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Committee on Oversight and Government Reform
Subcommittee on TARP, Financial Services and Bailouts of Public and
Private Programs

"State and Municipal Debt: The Coming Crisis? Part II."

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The views expressed in this testimony are those of the author alone and do not necessarily represent those of the American Enterprise Institute.

Chairman McHenry, Ranking Member Quigley and Members of the Committee. Thank you for offering me the opportunity to testify with regard to state and municipal debt.

My name is Andrew Biggs and I am a resident scholar at the American Enterprise Institute. However, the views I express today are my own and do not represent those of AEI or any other institution.

The fiscal crisis at the state and local level has many causes. The proximate cause is the significant economic recession from which the U.S. economy still struggles to recover. However, the recession has revealed a number of underlying trends which pose dangers to the future of state and local finance and, in the most extreme cases, may cause these governments to turn to Washington, D.C. for assistance.

The focus of my work has been on financing for public sector pensions, that is, pensions provided to employees of state and local governments. Unlike in the private sector, where the traditional defined benefit pension has been overtaken by defined contribution 401(k)-type plans, in the public sector defined benefit pensions are, if not going strong, at least the predominant form of retirement income provision for government employees.

The accounting standards applied to public sector pensions are far more forgiving than those required for use by private sector pensions or those that economic theory and the financial markets would recommend. Public sector pensions are allowed to discount future benefits, which are guaranteed for workers, using the high expected rates of return on risky portfolios containing stocks, international investments, private equity and hedge funds. Private pension accounting, economic theory, and the practice of financial markets dictate that the appropriate discount rate applied to a given liability is based upon the risk characteristics of the liability, not of funds that may be set aside to fund that liability.

Put simply, public pension accounting standards encourage state and local governments to promise too much, fund too little and take too much risk with their investments. Adequate disclosure of the true state of pension financing will provide markets the opportunity to impose discipline on municipal governments and give policymakers the incentive to act responsibly with regard to these obligations.

The problem with public pension accounting may be best explained through reference to a childhood joke. The question is, "Which weighs more, a pound of cotton or a pound of lead?" Once one

gets beyond the instinct to assume that anything made of lead weighs more than cotton, the answer is obvious: they weigh the same, since both weigh one pound.

Now ask yourself, “Which is worth more, one dollar of stocks or one dollar of bonds?” Despite the temptation to give a faux-sophisticated answer, the true answer is just as obvious: they’re both worth the same, one dollar. Each asset has a different combination of risk and return, but the market places both their values at one dollar. That’s the answer that financial markets would give you, and that’s the answer that economic theory would give you.

But that’s not the answer that public pension accounting would give you. In fact, by pension accounting standards, one dollar of stocks is “worth” about \$1.75 of U.S. Treasury bonds.¹ Even if a plan sponsor wished to fund his liabilities responsibly, pension accounting would deem him a virtual fool to do so.

To illustrate, consider a pension that owes a lump sum of \$500 million 15 years from now. It has \$100 million in assets today with which to fund that liability. How well funded is it? Under current accounting standards, that depends on what those funds are invested in. If the plan holds \$100 million in stocks with an expected return of 10 percent, then it discounts the future liability by a 10 percent annual return, generating a present value of \$120 million.² The plan is considered 85 percent funded and has an unfunded liability of about \$20 million.

But now imagine that the plan shifted its assets to U.S. Treasury securities yielding 4 percent. This would alter the discount rate applied to the future liability, generating a much higher present value of around \$275 million. The plan would now be considered only 37 percent funded, with an unfunded liability of almost \$180 million.

This exercise is what public pensions go through every day and is in part accountable for why pension assets have shifted increasingly toward equities, foreign investments, hedge funds and private equity. The more risk you take, the better funded you look. Indeed, public pensions around the country could erase their reported \$500 billion underfunding – on paper at least – by shifting to an all-equity portfolio with an expected return of 10 percent. Such a portfolio shift would do nothing to improve

¹ If the average pension liability lies 15 years in the future, the effect of an 8 percent return on equities versus a 4 percent return on U.S. Treasury bonds would be $1.08^{15}/1.04^{15} = 1.7619$

² E.g., $\$500/1.10^{15} = \119.70 .

pension funding in reality, but it would violate neither the mathematics nor the underlying logic of current pension accounting standards.

But this dynamic is completely foreign to economists and to financial markets. After all, the plan's liabilities are the same in either case: \$500 million, payable in 15 years' time. And the market value of the plan's assets is the same in either case: \$100 million. But by holding stocks and taking more risk, the plan improves the government's bottom line by almost \$160 million. Public pension accounting clearly – almost brazenly – violates the “no arbitrage” principal that is fundamental to modern financial economics. Because public pension accounting ignores risk, it acts as if money can be created out of thin air.

Economists view things differently. In financial economics, the discount rate applied to a future liability is based upon the risk characteristics of the liability, not of any assets set aside to fund the liability.³ This is fundamental both to the economic theory and to how financial markets work in practice from day to day. If accrued public sector pension benefits are guaranteed – as plan sponsors intend them to be, and as state laws and constitutional provisions make them in practice – then they should be discounted at a low interest rate that reflects that guarantee.

Doing so, total public pension unfunded liabilities rise from a reported value of around \$500 billion to over \$3 trillion. Public pensions, rather than being about 80 percent funded on average, are only around 40 percent funded. To put this in perspective, the Department of Labor deems any private pension that is below 80 percent funded “endangered” and below 65 percent funded “critical.”⁴ If public pensions were required to use private pension accounting, there would not be a single plan in the country that was not considered “critical.”

Moreover, as policymakers and plan managers have discovered the seemingly infinite powers of a high discount rate, public pension portfolios have shifted increasingly toward risky investments. The share of public pension assets held in equities has doubled since 1985⁵ and pensions are increasingly shifting into “alternate investments” such as private equity and hedge funds. The economic rationale for such investments is poor, given that pension assets are intended not simply to maximize return but to insure that plans have sufficient funds to pay guaranteed benefits whenever they are needed, without

³ This derives from the Modigliani-Miller theorem in corporate finance.

⁴ Life and Health Insurance News.com (2009). “The Big Pension Freeze.” May 19.

<http://www.lifeandhealthinsurancenews.com/News/2009/4/Pages/The-Big-Pension-Freeze.aspx>

⁵ Source: Federal Reserve Flow of Funds Account of the United States.

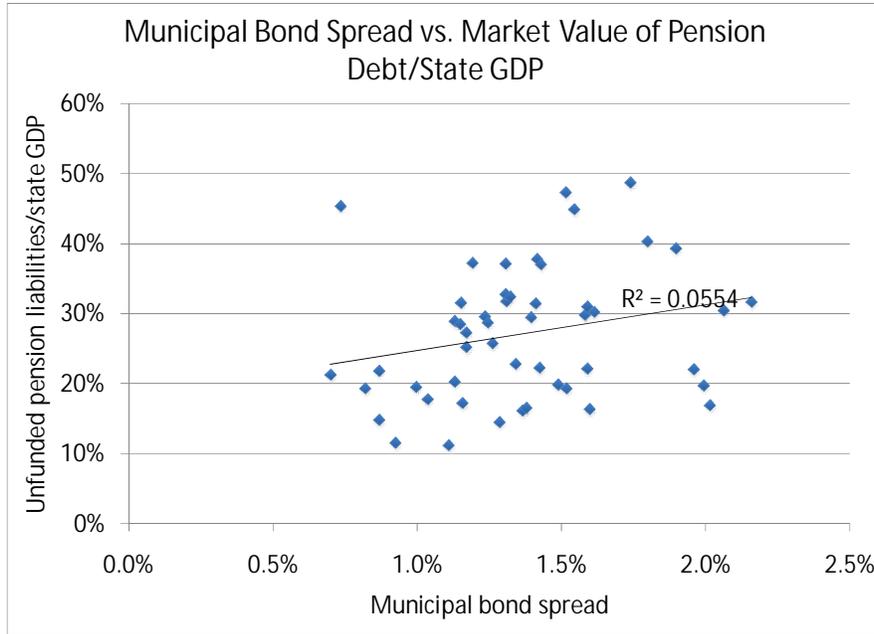
recourse to additional taxpayer funds in the future. Public pensions seem to practice almost nothing in the way of asset-liability management, but in a sense their job should be almost nothing but asset-liability management.

The Governmental Accounting Standards Board is considering revisions to its accounting standards for public pensions that economists hoped would bring public pension accounting in line with economic theory and private pension standards. But based on preliminary recommendations released last year, GASB's revised standards would be, if anything, even less coherent than its current rules.⁶

For all these reasons, I favor steps that may aid policymakers, financial markets, and the public in understanding the role that public pension obligations play in overall state and local finances. For one, the Public Employee Pension Transparency Act, sponsored in the House by Rep. Devin Nunes (R-CA) and in the Senate by Sen. Richard Burr (R-NC), would require states to disclose the market value of pension obligations using an appropriate discount rate. It would not force states to alter their own accounting or change their funding, but if sunlight is the best disinfectant then additional information may help everyone in gathering the courage to address these issues.

But all of this leads to a separate question: how large a role should unfunded pension liabilities play in determining the credit ratings for municipal bonds? Others are far more qualified to answer this question than I am, but I would note this: in practice, pension obligations have been senior to explicit debt in order of payment, such that the size of unfunded pension obligations has a direct bearing on the risk of government debt. In New York City in the 1970s, Orange County, California in the 1990s and Vallejo, California today, full public sector pensions were and are being paid even as bondholders and other stakeholders accept cuts. Without debating whether this should be so, there is no doubt that our assessments of the risks of government debt should bear this fact in mind. For each dollar of outstanding state government debt, there are three dollars of unfunded pension liabilities that must be repaid first.

⁶ See Biggs, Andrew G. "Proposed GASB Rules Show Why Only Market Valuation Fully Captures Public Pension Liabilities." *Financial Analysts Journal*, March/April 2010.



In preliminary analysis for my own work, I found that the market value of unfunded public pension liabilities currently has almost no direct bearing on the credit ratings of state bonds.⁷ However, the accompanying chart, showing the market value of unfunded pension liabilities as a percent of state GDP

and the spread on state municipal bonds relative to the Treasury rate, shows a small but significant bearing between the two, such that greater pension liabilities correlate with higher borrowing costs.

Other more sophisticated studies have found a modest relationship between pension liabilities and state borrowing costs⁸, but it is smaller than one might assume given the prominence of pension funding in public policy debates.

It may be that these results are not problematic. Currently, pension funding for most states takes up only 3 to 4 percent of their total budgets,⁹ down from almost 6 percent of budget from the 1950s through the mid-1980s. This decline matches the upward path of equity investment in public pension funds, which due to the effects of higher discount rates would reduce current funding requirements.

However, many states already are having difficulty meeting pension funding demands and using market valuation of pension liabilities the typical state would need to devote roughly 10 percent of its budget to funding pensions. In certain states, such as California, New Jersey and Illinois, pension funding could take up significantly larger shares of total budgets. Amidst rising Medicaid costs, increasing costs

⁷ Biggs, Andrew G. "An Options Pricing Method for Calculating the Market Price of Public Sector Pension Liabilities." American Enterprise Institute Working Paper. February 26, 2010.

⁸ See Novy-Marx, Robert and Rauh, Joshua D. "Fiscal Imbalances and Borrowing Costs: Evidence from State Investment Losses." May 21, 2010. Munnell, Alicia H., Aubry, Jean-Pierre, and Quinby, Laura. "The Impact of Pensions on State Borrowing Costs." Center for Retirement Research, SLP#14. February 2011.

⁹ Munnell, Alicia H., Aubry, Jean-Pierre, and Quinby, Laura. "The Impact of Public Pensions on State and Local Budgets." Center for Retirement Research, SLP#13. October 2010.

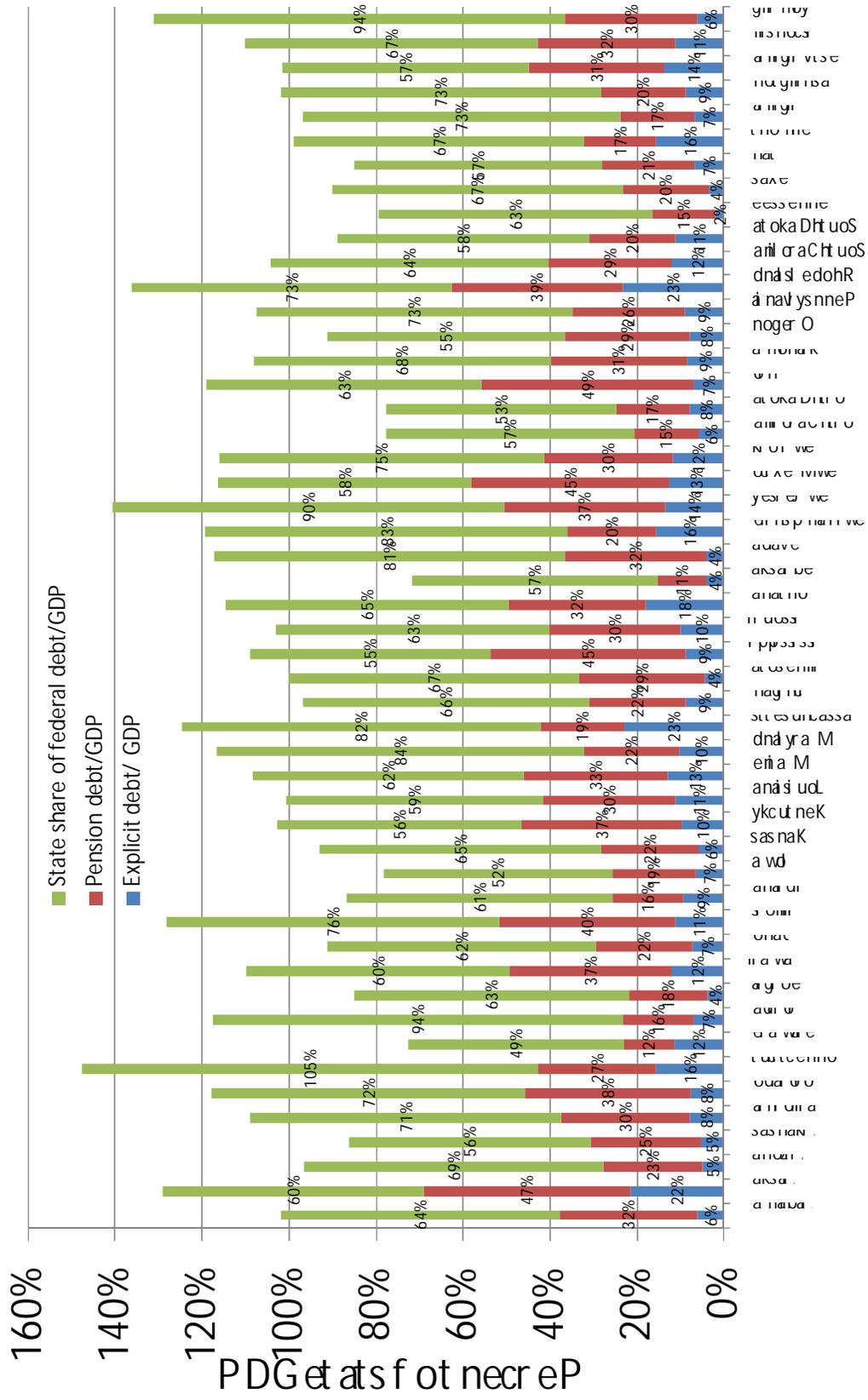
for retiree health care for public employees and other concerns, devoting that level of resources to a single aspect of public activities may be considered troubling.

However, credit rating agencies consider a large number of factors in assessing creditworthiness and both explicit debt and pension liabilities are not foremost among them. Establishing models to calculate the probability of extremely unlikely events is difficult; we cannot know with certainty how large a role excessive debt, explicit or implicit, plays relative to other more immediate factors in determining if a government will be unable to meet its debt obligations.

We do know, however, that debt at all levels of government is rising and that there is only one economy and one set of taxpayers that the federal, state and local governments can rely on to service this debt. The combined value of explicit state debt, the market value of unfunded state pension liabilities and publicly-held federal debt equals around 100 percent of U.S. gross domestic product, a troubling value given the significant fiscal challenges lying ahead. Indeed, as the figure on the following page shows, when states' shares of the rising federal debt are included, many shoulder total debt burdens approach those that brought Greece and Ireland to fiscal ruin. While the analogies should not be overextended, it is not an exaggeration to say that rising debt should be a central focus of public policy at the federal, state and local levels over the next decade.

The sooner policymakers and the public are made aware of true levels of pension and other obligations, the sooner and more effectively we can act to address them. It would be ironic indeed if, even as we recover from our last self-inflicted financial crisis – caused by lax accounting and aggressive investing in housing – we stumbled into our next, founded in the same basic errors.

State liabilities as percent of GDP



Source: Biggs, Andrew G. "An Options Pricing Method for Calculating the Market Price of Public Sector Pension Liabilities." American Enterprise Institute Working Paper. February 26, 2010.